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UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON

WASHINGTON TOXICS COALITION,)	Civ. No. C01-0132C
NORTHWEST COALITION FOR)	
ALTERNATIVES TO PESTICIDES,)	MOTION FOR FURTHER
PACIFIC COAST FEDERATION OF)	INJUNCTIVE RELIEF
FISHERMEN'S ASSOCIATIONS, and)	
INSTITUTE FOR FISHERIES RESOURCES,)	ORAL ARGUMENT REQUESTED
)	NOTE ON MOTION CALENDAR:
Plaintiffs,)	December 20, 2002
)	
v.)	
)	
ENVIRONMENTAL PROTECTION)	
AGENCY, and CHRISTINE TODD)	
WHITMAN, ADMINISTRATOR,)	
)	
Defendants,)	
)	
AMERICAN CROP PROTECTION)	
ASSOCIATION, et al.,)	
)	
Intervenor-Defendants.)	

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1 INTRODUCTION

2 On July 2, 2002, this Court held that defendant Environmental Protection Agency
3 (“EPA”) is in violation of Section 7(a)(2) of the Endangered Species Act (“ESA”) for not
4 consulting on the impacts of 54 pesticide active ingredients on threatened and endangered
5 salmon.¹ The Court ordered EPA to initiate consultations on the 54 pesticides in accordance
6 with a schedule that runs until December 2004. Through the consultations, the National Marine
7 Fisheries Service (“NMFS”) will provide its expert biological opinion as to what is required to
8 ensure that use of registered pesticides containing these active ingredients will not jeopardize the
9 survival and recovery of listed salmon. Once NMFS issues its biological opinion, EPA must
10 take whatever steps are necessary to prevent such jeopardy.

11 The ESA contains a “clear mandate that a comprehensive biological opinion ... be
12 completed before initiation of the agency action.” Conner v. Burford, 848 F.2d 1441, 1455 (9th
13 Cir. 1986) (emphasis added). Contrary to this mandate, the actions undergoing consultation –
14 use of the 54 pesticide active ingredients in salmon watersheds – are continuing unabated. EPA
15 is continuing to authorize use of registered pesticides containing the 54 pesticide active
16 ingredients without sufficient constraints to prevent harm to salmon.

17 Plaintiffs Washington Toxics Coalition et al. (“Toxics Coalition”) presented evidence to
18 this Court demonstrating that residues of these pesticides either have been detected by the U.S.
19 Geological Survey (“USGS”) in surface waters in salmon watersheds at levels that exceed
20 aquatic life criteria or that EPA has found that these pesticides are likely to migrate into surface

21 _____
22 ¹ The Court’s order lists 55 pesticide active ingredients. Order at 14 n. 22. However, because
23 lindane (gamma-BHC & HCH) identified in the Decl. of Richard D. Ewing, Ph.D and lindane
24 identified in the Second Declaration of Aimee Code refer to the same active ingredient, the
Court’s order covers 54 pesticide active ingredients. A registered pesticide contains one or more
active ingredients. “Salmon” is used to refer to all listed salmonids, salmon and steelhead alike.

1 waters at levels that exceed EPA's levels of concern for fish, their food sources, or their habitat.
2 In holding that the Toxics Coalition has standing to challenge EPA's failure to consult on the 54
3 pesticides, the Court concluded that plaintiffs had submitted "scientific or competent declaratory
4 evidence demonstrating a causal link between EPA's ongoing registration actions and direct or
5 indirect effects on salmonid populations." Order at 13-14.

6 This motion seeks further injunctive relief to prevent harm to salmon from use of these
7 pesticides during the consultation process and the time it takes EPA to implement the results of
8 that process. To minimize the harm to listed salmon during the Section 7 process, the Toxics
9 Coalition asks the Court to issue an injunction prohibiting EPA from continuing to authorize use
10 of pesticides containing the 54 active ingredients: (1) within 20 yards of streams and other water
11 bodies accessible to listed salmon; and (2) through aerial spraying within 100 yards of streams
12 and other water bodies accessible to listed salmon. In addition to these buffer zones, the Toxics
13 Coalition seeks a further prohibition on the urban use of a subset of the pesticides frequently
14 detected in urban salmon watersheds unless the pesticides are sold by a licensed pesticide dealer
15 and applied by a certified pesticide applicator.

16 BACKGROUND

17 NMFS began listing salmon in 1989 with the emergency listing of the Sacramento winter
18 run chinook as threatened, a listing that was subsequently upgraded to endangered in 1994.
19 Since that time, NMFS has adopted 25 other listings of Pacific salmon. Despite the passage of
20 more than a dozen years since the first salmon ESA listing, EPA never initiated consultation with
21 NMFS on even a single pesticide until ordered to do so by this Court.

22 A growing body of scientific evidence documents numerous ways pesticides impact
23 salmon. These impacts include mortalities, sublethal effects to salmon, and indirect effects on
24 salmon food sources and habitat. Decl. of Richard Ewing, Ph.D, ¶¶ 4-19 (Apr. 2001).

1 In issuing its salmon protection rule under the ESA, 16 U.S.C. § 1533(d), NMFS
2 identified pesticide use as an activity that may kill or injure salmon, noting that “concentrations
3 of pesticides may affect salmonid behavior and reproductive success.” NMFS further stated that:
4 “Current EPA label requirements were developed in the absence of information about some of
5 these subtle but real impacts on aquatic species such as salmonids” and without an assessment of
6 the pesticides’ sublethal, synergistic, and cumulative effects on salmon. 65 Fed. Reg. 42,422,
7 42,427, 42,456-57, 42,473 (July 10, 2000).

8 The Toxics Coalition introduced evidence that particular pesticides are causing or are
9 likely to cause harm to listed salmonids. This evidence comes in two forms: (1) USGS
10 detections of the pesticides in salmon watersheds at levels associated with adverse effects to
11 salmon or their habitat; and (2) EPA findings in its ecological risk assessments that the registered
12 uses of these pesticides would likely result in environmental contaminations that exceed EPA’s
13 levels of concern for fish and their habitat.

14 First, USGS surface water monitoring has detected concentrations of pesticides in Pacific
15 Northwest and California rivers and streams at or above levels that are associated with
16 detrimental impacts to salmon and their habitat. Five of the USGS survey areas coincide or
17 overlap with the range of listed salmon: the Willamette Basin in Oregon, the Yakima Basin and
18 Puget Sound in Washington, and the San Joaquin-Tulare and Sacramento Basins in California.
19 Ewing Decl. ¶¶ 24-25 & Ex. 4-8; Ex. 46-47 to 1st Decl. of Aimee Code, M.S. (Apr. 2001); 3rd
20 Decl. of Aimee Code, M.S. ¶ 2 (Nov. 2002) & Ex. 1, 22. Detections were found both in areas
21 affected by agricultural pesticide uses and in urban and suburban areas from home and garden
22 and other non-agricultural pesticide uses. In 14 instances, USGS detected concentrations at or
23 above levels set by EPA or other governmental or scientific authorities to protect aquatic life
24

1 from effects. Ewing Decl. ¶ 26.

2 Second, EPA's re-registration process has documented hazards posed to salmon from
3 numerous pesticides. As part of the process of re-registering old pesticide products under current
4 environmental standards, EPA assesses the ecological risks from estimated environmental
5 concentrations of pesticides used in accordance with the registrations and EPA-approved labels.
6 1st Code Decl. ¶¶ 6-10. Based on toxicity studies, EPA establishes regulatory levels of concern
7 for fish, aquatic invertebrates, and aquatic plants. 54 Fed. Reg. 27,984, 28,003 (1989)
8 (describing how EPA makes ESA effects determinations); 1st Code Decl. ¶ 11. EPA has
9 established more stringent regulatory levels of concern for threatened and endangered species
10 because "listed species may not be able to withstand even the loss of a few individuals in the
11 population." 54 Fed. Reg. at 28,004; accord id. at 27,992 ("Since the population of a listed
12 species is generally already significantly reduced, the population is likely to be more susceptible
13 to additional environmental stresses, in addition to habitat loss, than are non-listed species").
14 EPA then estimates the environmental concentrations that will migrate into surface water from
15 the pesticide use to determine whether its regulatory levels of concern will be exceeded. Id.; 1st
16 Code Decl. ¶¶ 12-17. For many pesticides, the estimated environmental concentrations exceed
17 EPA's levels of concern for fish, aquatic invertebrates, and/or aquatic plants.²

18 The Coalition introduced EPA's findings of aquatic level of concern exceedances for
19

20 ² In its description of its endangered species program, EPA stated that an exceedance of a
21 pertinent regulatory level of concern "confirms that a 'may affect' situation exists." 54 Fed. Reg.
22 at 28,004; see also id. at 27,992 ("EPA conducts a risk assessment to arrive at a 'may affect'
23 determination.") In assessing particular pesticides, EPA routinely draws the conclusion from
24 exceedances of regulatory levels of concern that registered uses of the pesticide, for example,
25 "may adversely affect endangered species of . . . freshwater fish (acutely and chronically)." E.g.,
26 1st Code Decl. Exh. 12 at 153 (chlorothalonil); 1st Code Decl. ¶¶ 19-20. A "may affect"
determination triggers the Section 7 consultation obligation. 50 C.F.R. § 402.14(a).

1 more than three dozen pesticides that either are commonly used in Washington, Oregon, or
2 California or have been frequently detected in salmon watersheds in these three states. 1st Code
3 Decl. ¶¶ 17-31 & Exh. 5; 2nd Code Decl. ¶¶ 4-5. In addition, the Coalition presented EPA's
4 findings of aquatic level of concern exceedances for three other pesticides that are used less
5 frequently in the Pacific Northwest and California but in a manner that poses high risks of
6 exposure or toxicity. 2nd Code Decl. ¶ 7 (diflubenzuron, coumaphos, linuron). Either based on
7 the USGS detections or EPA's findings (or a combination of the two), the Coalition presented
8 evidence that 54 pesticide active ingredients either are making their way or are likely to make
9 their way into salmon streams at levels that cause harm to salmon or their habitat.

10 On July 2, 2002, this Court issued an order directing EPA to begin the process of
11 ensuring that use of the 54 pesticides will not harm listed salmon. The Court found that "it is
12 undisputed that EPA has not initiated, let alone completed, consultation with respect to the
13 relevant 55 pesticide active ingredients," Order at 16, and that "EPA's own reports document the
14 potentially-significant risks posed by registered pesticides to threatened and endangered
15 salmonids and their habitat." *Id.* at 15 n.25. According to the Court:

16 Despite competent scientific evidence addressing the effects of pesticides on salmonids
17 and their habitat, EPA has failed to initiate section 7(a)(2) consultation with respect to its
18 pesticide registrations. . . . Such consultation is mandatory and not subject to unbridled
19 agency discretion. The Court, declares, as a matter of law, that EPA has violated section
20 7(a)(2) of the ESA with respect to its ongoing approval of 55 pesticide active ingredients
21 and registration of pesticides containing those active ingredients.

22 *Id.* at 15. The Court established a schedule for EPA to initiate consultations on the pesticides,
23 which runs from July 15, 2002 through December 1, 2004.

24 In accordance with this Court's order, EPA determined that three pesticides "may affect"
25 listed salmon and initiated consultation with NMFS on those pesticides. The Coalition submitted
26 comments to NMFS and EPA identifying deficiencies in EPA's effects determinations and

1 consultation packages. 3rd Code Decl. Ex. 2-3.³ Presumably because of the inadequate
2 information supplied to NMFS, the consultations have not been concluded under the generally
3 controlling timeline. 16 U.S.C. § 1536(b)(1) & 50 C.F.R. § 402.14(e) (90-day timeline for
4 consultation may be extended where action agency needs to provide more information). Given
5 the many ways that pesticides impact salmon and their habitat and the fact that these will be the
6 first consultations conducted by NMFS on pesticide impacts on salmon, it may take several
7 months or longer for NMFS to issue biological opinions on the already-submitted pesticides. It
8 will obviously take much longer for the pesticides that sit further back in the queue.

9 If NMFS concludes that a pesticide will jeopardize salmon survival or recovery, it must
10 identify steps for EPA to take to avoid jeopardy. 16 U.S.C. § 1536(b)(3)(A) (jeopardy biological
11 opinions must present a reasonable and prudent alternative that avoids jeopardy). To discharge
12 its independent Section 7 duty to avoid jeopardy, EPA must comply with the biological opinion
13 or take other measures sufficient to ensure that its actions will not jeopardize listed species'
14 survival and recovery. See Pyramid Lake Paiute Tribe v. Dep't of Navy, 898 F.2d 1410, 1415-
15 16 (9th Cir. 1990) (action agency has substantive obligation to avoid jeopardy); Bennett v. Spear,
16 520 U.S. 154, 168-69 (1997) (action agencies generally discharge their Section 7 duty by
17 implementing the biological opinion). In addition, NMFS may issue an incidental take statement
18 that authorizes the take of listed species from the federal activity subject to terms and conditions
19

20 ³ EPA has made effects determinations on six pesticides: a "likely to adversely affect"
21 determination for propargite, leading to a formal consultation; "not likely to adversely affect"
22 determinations on some propargite uses and two other pesticides, leading to informal
23 consultations, and "no effect" determinations for three pesticides, ending the consultation
24 process. The Toxics Coalition objected to the no effect and not likely to adversely affect
25 determinations because EPA focused exclusively on acute lethal effects, ignored the growing
26 evidence on sublethal effects at lower doses, and relied on methods for discounting effects that
have never been subjected to NMFS' scrutiny. See 3rd Code Decl. Ex. 2-3.

1 that mitigate the harm from the take. 16 U.S.C. § 1536(b)(4). To be insulated from ESA take
2 liability, EPA would need to comply with the terms and conditions of an incidental take
3 statement on its pesticide registrations. Id. § 1536(o)(2).

4 Even once NMFS issues a biological opinion, it will take time for EPA to bring its
5 pesticide registrations into compliance with Section 7 based on the opinion. Under the Federal
6 Insecticide, Fungicide, and Rodenticide Act (“FIFRA”), EPA imposes use restrictions by
7 amending its pesticide registrations and the EPA-approved labels on the pesticide products. The
8 FIFRA process of re-registering pesticide products has stretched out for years. 7 U.S.C. § 136-1.
9 Even once EPA revises a registration and requires new labels, EPA generally allows pesticides
10 bearing the old labels to be sold for an additional year or more. See 56 Fed. Reg. 29,362, 29,368
11 (1991) (generally allowing 18 months to sell products bearing old labels); 1st Goldman Decl. Ex.
12 1 (2001 agreement to phase-out residential uses of diazinon over 3 years); 1st Goldman Decl. Ex.
13 2 (2000 agreement to phase out residential uses of chlorpyrifos over 1-4 years).

14 Incessant time lags have plagued EPA’s actions to bring its pesticide registrations into
15 compliance with the ESA. While EPA has never consulted with NMFS over the effects of
16 pesticides on salmon, it has engaged in several consultations with the U.S. Fish and Wildlife
17 Service over the impacts of pesticides on other listed species. See 54 Fed. Reg. at 27,985
18 (describing EPA pesticide consultations). EPA has accumulated biological opinions, but done
19 little more than place them on a shelf. For example, the Fish and Wildlife Service last issued a
20 biological opinion on pesticide impacts on aquatic species in 1989, yet EPA has never amended
21 any of the pesticide labels to implement that biological opinion. See infra at 20-21. Where a
22 biological opinion finds that a pesticide use will cause jeopardy to a listed species, EPA has
23 postponed changing its registrations or the labels to comply with the opinion until it develops an
24

1 endangered species program. And while EPA proposed such a program in 1989, it has allowed
2 that proposal to languish in the halls of the EPA bureaucracy. The proposed program would
3 require pesticide labels to refer pesticide users to use limitations contained in county bulletins.
4 Id. at 28,005-06. In anticipation of this program, EPA has developed some county bulletins
5 embodying safeguards to protect threatened and endangered species in keeping with the
6 biological opinions. See Decl. of David J. Zaber, Ph.D ¶¶ 16-18 (Nov. 2002). These county
7 bulletins remain purely voluntary because EPA's endangered species program is still dormant.

8 To make matters worse, EPA recently considered back tracking from requiring
9 mandatory use restrictions to protect threatened and endangered species. The Fish and Wildlife
10 Service reacted negatively to this proposal, cautioning that:

11 Unless EPA requires mandatory compliance with FIFRA-enforceable pesticide use
12 limitations, there will be no certainty that our consultations on pesticides will result in
13 protective measures for threatened and endangered species. Unless the pesticide
14 applicator is required to implement the use limitations necessary to protect listed species,
we cannot assume that the alternatives to avoid jeopardy or the measures to minimize
take will be effective.

15 Letter to EPA Ass't Admin. from FWS Director at 1 (June 9, 2000) (1st Goldman Decl. Ex. 3).

16 While the Court has imposed a schedule for EPA to initiate Section 7 consultations,
17 initiation of consultation will only begin the process of bringing EPA's pesticide registrations
18 into compliance with the ESA. After NMFS issues a biological opinion assesses a pesticide's
19 impacts on salmon, EPA must implement the biological opinion. In the past, EPA has been
20 extremely dilatory in translating biological opinions into pesticide use restrictions to protect
21 threatened and endangered species. Based on EPA's track record, it is likely to take EPA an
22 inordinate amount of time to bring its pesticide registrations into compliance with Section 7. In
23 the meantime, threatened and endangered salmon are placed at risk, contrary to the ESA's
24 mandates. For this reason, the Coalition asks the Court to order further injunctive relief to

1 minimize the harm to listed salmon from use of the 54 pesticides while EPA completes and
2 implements consultation on its EPA's registrations.

3 ARGUMENT

4 I. UNDER SECTION 7(A)(2), AN INJUNCTION SHOULD ISSUE TO MINIMIZE
5 HARM TO LISTED SALMON SPECIES DURING THE CONSULTATION
PROCESS.

6 A. An ESA Consultation Must Be Completed Before an Agency Action that May
7 Affect Listed Species May Proceed.

8 Section 7(a)(2) imposes both substantive and procedural obligations on federal agencies.
9 Substantively, Section 7(a)(2) requires every federal agency to ensure that its actions are not
10 likely to jeopardize the survival or recovery of a listed species. 16 U.S.C. § 1536(a)(2). To
11 ensure compliance with the substantive no-jeopardy mandate, Section 7(a)(2) establishes a
12 consultation process, calling for “a systematic determination of the effects of a federal project on
13 endangered species.” Thomas v. Peterson, 753 F.2d 754, 764 (9th Cir. 1985).

14 The formal consultation process commences when a federal action agency determines
15 that a proposed federal action “may affect listed species,” 50 C.F.R. § 402.14(a), and concludes
16 when the expert fish and wildlife agency issues a biological opinion determining whether the
17 proposed action is likely to jeopardize the survival or recovery of a listed species. 16 U.S.C. §
18 1536(b)(3)(A); see also 50 C.F.R. § 402.14(g) (expert agency consultation responsibilities); 50
19 C.F.R. § 402.14(h) (contents of biological opinion). By regulation, NMFS and the Fish and
20 Wildlife Service have established an informal consultation process under which the action
21 agencies may make a “may affect” but “not likely to adversely affect” finding for a particular
22 action. 50 C.F.R. § 402.13. If NMFS concurs in writing in a “not likely to adversely affect”
23 finding, informal consultation is concluded; if NMFS does not concur, a formal consultation is
24 required. Id. §§ 402.13(a), 402.14(b)(1) & (l)(3).

1 Under this statutory framework, federal actions that may affect a listed species may not
2 proceed until the federal agency insures, through completion of the consultation process, that the
3 action is not likely to cause jeopardy. 16 U.S.C. § 1536(a); 50 C.F.R. §§ 402.14, 402.13.

4 Accordingly, federal agencies must complete ESA consultations before they pursue the action at
5 issue. See, e.g., Conner, 848 F.2d at 1455 (Forest Service could not enter into oil and gas leases
6 until it obtained a comprehensive biological opinion on all phases of oil and gas activities).

7 B. An Injunction is Ordinarily the Appropriate Remedy Pending Compliance with
8 Section 7.

9 In Tennessee Valley Auth. v. Hill, 437 U.S. 153, 173, 193-95 (1978) (“TVA”), the
10 Supreme Court held that the ESA forecloses the traditional equitable balancing undertaken by
11 the Courts:

12 Congress has spoken in the plainest of words, making it abundantly clear that the balance
13 has been struck in favor of affording endangered species the highest of priorities, thereby
14 adopting a policy which it described as “institutionalized caution.”

15 Id. at 194; accord id. (“Once Congress, exercising its delegated powers, has decided the order of
16 priorities in a given area, it is for the Executive to administer the laws and for the courts to
17 enforce them when enforcement is sought.”). In TVA, the Court enjoined opening the floodgates
18 at Tellico Dam in order to prevent extinction of an endangered fish, despite the huge investment
19 made in constructing the facility. Since TVA, the Supreme Court has reaffirmed that Congress,
20 in enacting the ESA, “foreclosed the exercise of the usual discretion possessed by a court of
21 equity.” Weinberger v. Romero-Barcelo, 456 U.S. 305, 313 (1982).

22 The Ninth Circuit has heeded this admonition, beginning in Thomas v. Peterson, 753
23 F.2d 754 (9th Cir. 1985). In Thomas, the Forest Service sought to build a road where endangered
24 wolves might be present without initiating consultation, let alone waiting for and complying with
25 a biological opinion. Id. at 763. The Ninth Circuit enjoined construction of the road pending

1 compliance with Section 7, holding that “[g]iven a substantial procedural violation of the ESA in
2 connection with a federal project, the remedy must be an injunction of the project pending
3 compliance with the ESA.” Id. at 764. The Ninth Circuit rejected the contention that the
4 plaintiffs bore the burden of proving harm to the wolf:

5 This is not a finding appropriate to the district court at the present time. Congress has
6 assigned to the agencies and to the Fish & Wildlife Service the responsibility for
7 evaluation of the impact of agency actions on endangered species, and has prescribed
8 procedures for such evaluation. Only by following the procedures can proper evaluations
be made. It is not the responsibility of the plaintiffs to prove, nor the function of the
courts to judge, the effect of a proposed action on an endangered species when proper
procedures have not been followed.

9 Id. at 765 (emphasis added). The Court further explained:

10 If anything, the strict substantive provisions of the ESA justify more stringent
11 enforcement of its procedural requirements, because the procedural requirements are
12 designed to ensure compliance with the substantive provisions. . . . If a project is allowed
13 to proceed without substantial compliance with those procedural requirements, there can
be no assurance that a violation of the ESA’s substantive provisions will not result. The
latter, of course, is impermissible.

14 Id. at 764 (citing TVA).

15 In Sierra Club v. Marsh, 816 F.2d 1376, 1384 (9th Cir. 1987), the Ninth Circuit stopped
16 construction of a combined highway and flood control project until the federal agency acquired
17 lands the biological opinion deemed necessary to avoid jeopardy to two endangered bird species,
18 or until it engaged in a new consultation on different mitigation to avoid jeopardy. The Court
19 reiterated that “[w]e may not use equity’s scales to strike a different balance”:

20 Congress has established procedures to further its policy of protecting endangered
21 species. The substantive and procedural provisions of the ESA are the means determined
22 by Congress to assure adequate protection. Only by requiring substantial compliance
with the act’s procedures can we effectuate the intent of the legislature.

23 While most cases enjoining federal actions pending completion of consultation have
24 prevented initiation of new activities, the same principles apply to the continuation of ongoing

activities. The seminal case – TVA – enjoined completion of the Tellico Dam.⁴ Similarly, in Pacific Rivers Council v. Thomas, 30 F.3d 1050 (9th Cir. 1994), the Ninth Circuit held that the district court erred in allowing ongoing projects to continue during consultation on national forest plans affecting listed salmon, explaining that “[o]nly after the Forest Service complies with § 7(a)(2) can any activity that may affect the protected salmon go forward.” Id. at 1056-57.

Adhering to Supreme Court and Ninth Circuit precedent, this Court enjoined fishing in Steller sea lion critical habitat until a valid biological opinion issued. Greenpeace v. NMFS, 106 F. Supp.2d 1066 (W.D. Wash. 2000).⁵ After invalidating a biological opinion on federal authorization of the fishery, the Court concluded: “NMFS is unable at present to conclude that the overall effects of these numerous fisheries, or its core management scheme, are not likely to adversely affect Steller sea lions. NMFS cannot validly authorize continued fishing within Steller sea lion critical habitat until it meets its substantive obligations under the ESA. Under Thomas, an injunction pending compliance must be the remedy.” Id. at 1076.

In Pacific Coast Fed. of Fishermen’s Ass’ns v. Bureau of Reclamation, 138 F.Supp.2d 1228 (N.D. Cal. 2001), a district court held that the Bureau of Reclamation had violated Section 7(a)(2) by implementing an operations plan for a federal irrigation project without consulting with NMFS on the impacts of the water withdrawals on listed salmon. In keeping with Ninth

⁴ In response to TVA, Congress amended the ESA to create an exemption process through which the Endangered Species Committee, commonly called the “God Squad,” can decide that a project will go forward even if it will cause jeopardy to a listed species. 16 U.S.C. § 1536(e)-(h). The God Squad exemption process places responsibility on political appointees, rather than Article III Judges, to override the ESA’s mandates.

⁵ In Greenpeace, NMFS was both the action agency authorizing the fishing and the expert agency assessing the impacts of that fishery on endangered sea lions in an ESA consultation. It, therefore, consulted with itself. Once the Court invalidated NMFS’ biological opinion, it issued injunctive relief against NMFS, as the action agency.

1 Circuit precedent, the district court held that the Bureau had committed a substantial procedural
2 violation of the ESA and enjoined the Bureau from delivering water from the project when river
3 levels fell below minimum flows for salmon until completion of consultation. Id. at 1250.

4 Similarly, in Greenpeace Foundation v. Mineta, 122 F.Supp.2d 1123, 1137 (D. Hawaii
5 2000), the district court enjoined lobster fishing in the Western Pacific Ocean pending
6 completion of consultation to ensure that the fishery will not jeopardize survival or recovery of
7 the Hawaiian monk seal. Because continued implementation of the fisheries plan “constitutes an
8 ongoing violation of Section 7,” the court held that “Section 7 compels the Court to enjoin
9 operation of the lobster fishery until NMFS completes formal consultation . . .” Id.

10 A recent Ninth Circuit case – Southwest Center for Biological Diversity v. Forest
11 Service, 2002 U.S. App. LEXIS 20747, at 17 (9th Cir. Oct. 2, 2002) – carved out a “narrow
12 exception” to the principle that courts must “impose an injunction given a procedural violation of
13 the ESA . . .” The Court held that the Forest Service must consult on the impacts of grazing on
14 the loach minnow, a threatened fish species. Turning to injunctive relief, the district court found
15 that the Forest Service had instituted mitigation measures by excluding cattle from the riparian
16 areas and that monitoring showed riparian conditions were improving as a result of the
17 mitigation. Id. at 18-19. Based on these findings and the fact that the consultation was ongoing
18 and nearing completion, the district court declined to issue an injunction. A split Ninth Circuit
19 panel found no error because the administrative record documented the mitigation measures put
20 in place to protect the loach minnow during consultation, improvements in habitat conditions,
21 and the imminent completion of consultation. The majority reiterated that it would be
22 impermissible for a court to allow jeopardizing actions or substantive violations of the ESA to go
23 forward, id., and cautioned that denying injunctive relief would be appropriate only if the
24

1 administrative record provided a basis for the court to determine “how the action impacted the
2 species or whether the action put the endangered species in jeopardy.” Id. at 18.

3 Under Ninth Circuit precedent, an injunction is warranted to prevent harm to listed
4 salmon from the 54 pesticides during the consultation process. The USGS has detected some of
5 these pesticides in surface waters at levels that pose harm to listed salmon or their habitat.
6 EPA’s own risk assessments predict that environmental concentrations of currently registered
7 pesticide uses will result in environmental contamination above EPA’s own levels of concerns
8 for fish or aquatic habitat. Despite these USGS detections and EPA findings, EPA never
9 presented any of these pesticide registrations to NMFS for consultation prior to this Court’s
10 order. NMFS has, therefore, lacked the opportunity and any basis for rendering its expert
11 opinion on whether the pesticide uses authorized by EPA will result in a violation of the ESA’s
12 substantive provisions. At the same time, use of these pesticides continues in salmon watersheds
13 without sufficient safeguards to prevent migration of these pesticides into salmon streams.

14 C. Section 7(d) Erects No Bar to Injunctive Relief.

15 EPA may try to invoke Section 7(d) as a license to authorize use of pesticides that may
16 harm listed salmon during the consultation process. Such an approach to § 7(d) would be
17 contrary to the ESA and the relevant case law. Section 7(d), 16 U.S.C. § 1536(d), provides:

18 **Limitation on commitment of resources.** After initiation of consultation
19 required under subsection (a)(2) of this section, the Federal agency ... shall not
20 make any irreversible or irretrievable commitment of resources with respect to the
21 agency action which has the effect of foreclosing the formulation or
22 implementation of any reasonable and prudent alternative measures which would
23 not violate subsection (a)(2) of this section.

24 On its face, Section 7(d) applies only once consultation has been initiated. In Pacific
25 Rivers Council, the Forest Service had invoked § 7(d) to allow ongoing actions to continue
26 without consultation on the governing forest plans. Because Section 7(d), by its plain language,

1 applies “only after an agency has initiated consultation under § 7(a)(2),” 30 F.3d at 1056, it
2 provided no basis for allowing activities to continue without consultation. Id. (“we have
3 previously made it clear that § 7(d) does not serve as a basis for any governmental action unless
4 and until consultation has been initiated”) (emphasis added). Under the Court-ordered schedule
5 in this case, EPA will initiate consultations on the 54 pesticides over a period of 2-1/2 years.
6 Accordingly, Section 7(d) may be invoked, if at all, only with respect to the pesticides that have
7 already received “may affect” determinations and been sent to NMFS for consultation.

8 Where it does apply, Section 7(d) prevents agencies from taking actions, such as entering
9 into contracts, signing leases, or constructing associated facilities, that commit it to a planned
10 project while the agency is still evaluating the project’s effects on listed species. See, e.g.,
11 Natural Resources Defense Council v. Houston, 146 F.3d 1118, 1128 (9th Cir. 1998) (§ 7(d)
12 barred executive of contracts prior to completion of consultation); Marsh, 816 F.2d at 1389 (§
13 7(d) precluded construction of highway outside species’ habitat during consultation). Congress
14 added § 7(d) in 1978 in the wake of the Supreme Court’s decision in TVA to prohibit activities
15 that create momentum toward completing the project. As one court explained:

16 Congress enacted § 7(d) to prevent Federal agencies from “streamrolling” activity
17 in order to secure completion of the projects regardless of the impacts on
18 endangered species. As the Supreme Court noted, the District Court was
19 concerned in TVA v. Hill because “a large portion of the \$78 million already
20 expended would be wasted.” In response, Congress enacted § 7(d) to preclude the
21 investments of large sums of money in any endeavor if (1) at the time of the
investment there was a reasonable likelihood that the project, at any stage of
development, would violate § 7(a)(2), and (2) that investment was not salvageable
(i.e. it could not be applied to either an alternative approach to the original
endeavor or to another project.)

22 North Slope Borough v. Andrus, 486 F. Supp. 332, 356 (D.D.C. 1979), aff’d in part, rev’d in
23 part, 642 F.2d 589 (D.C. Cir. 1980).

24 Because Section 7(d) protects the integrity of the consultation process, it cannot be

invoked to allow the action under consultation to go forward before the consultation process is complete. As the Ninth Circuit explained in rejected a contrary position in Conner:

Section 7(d) does not amend section 7(a) to read that a comprehensive biological opinion is not required before the initiation of agency action so long as there is no irreversible or irretrievable commitment of resources. Rather, section 7(d) clarifies the requirements of section 7(a)(2), ensuring that the status quo will be maintained during the consultation process.

848 F.2d at 1455 n.34; see also Pacific Rivers Council v. Thomas, 936 F. Supp. 738, 745 (D. Id. 1996) (action agency may not unilaterally determine under § 7(d) that action under consultation may proceed before consultation concludes). Because it is only through consultation that agencies can ensure they will satisfy the Act's substantive mandate to avoid jeopardy, agency actions cannot proceed until consultation is completed. Thomas, 753 F.2d at 764.

II. INJUNCTIVE RELIEF CAN BE CRAFTED TO MINIMIZE THE HARM TO SALMON DURING THE CONSULTATION PROCESS.

This Court already has held that EPA is in continuing violation of Section 7(a)(2) with respect to the 54 pesticides at issue. In its summary judgment order, this Court based its finding of harm to salmon on the evidence showing that: (1) the 54 target pesticides are toxic to salmon, their food supply, or their habitat; and (2) these pesticides have made or are likely to make their way into salmon streams. This evidence comes from the USGS detections of many of the target pesticides at or above aquatic life criteria and EPA's ecological risk assessments concluding that the estimated environmental concentrations of these pesticides in surface waters will exceed EPA's regulatory levels of concern for fish or their habitat. The record is replete with evidence that these pesticides, used in accordance with EPA's registrations, are migrating or are likely to migrate into salmon streams.

Because of their toxicity, these pesticides are likely to harm salmon when they reach salmon streams. Indeed, some of EPA's risk assessments document fish kills from use of the

pesticides in accordance with the EPA-approved label. For example, registered uses of atrazine, disulfoton, fenamiphos on golf courses, azinphos-methyl, chlorpyrifos, and malathion have resulted in numerous documented fish kills. See 3rd Code Decl. Ex. 4 at 62-63, 88-89; 1st Code Decl. Ex. 32 at 11 & Ex. 34 at 9-10; 3rd Code Decl. Ex. 5 at 46-47, 51-52 & Ex. 11 at 108.

Not only is harm to salmon occurring, but EPA will remain in violation of Section 7 for some time to come. Under the Court-ordered schedule, it will take 2 and one half years for EPA to begin the consultation process for all 54 pesticides. It will take NMFS longer to produce biological opinions for these pesticides, and it will take still longer for EPA to bring its pesticide registrations into compliance with the biological opinions and Section 7. In the meantime, EPA is continuing to authorize use of these pesticides in ways that cause harm to salmon.

Because of the indefinite continuation of the ESA violations and on-the-ground harm through continued surface water contamination, injunctive relief is warranted to minimize the amounts of these pesticides that migrate into salmon streams. In its proposed endangered species program, EPA acknowledged that:

The ESA is designed to provide protection to listed species to prevent them from becoming extinct and to their habitat to prevent adverse alteration. The EPA's responsibilities under the ESA dictate that it cannot wait to regulate a pesticide until conclusive proof of direct harm to a listed species has been compiled, submitted, and analyzed. Section 7 of the ESA is designed to prevent such harm before it occurs.

54 Fed. Reg. at 27,993. In keeping with EPA's own admonition, interim use restrictions should be imposed to minimize further harm to salmon while more conclusive proof is being amassed.

A. Restrictions on Pesticide Applications in Streamside Buffers

1. The Need to Reduce Contamination of Salmon Streams From Drift and Runoff

Pesticides enter salmon streams through several pathways, including drift and surface water runoff. See Decl. of David J. Zaber Ph.D, ¶¶ 5-9 (Nov. 2002) (ecology and environmental toxicology expert). EPA has long recognized the hazards presented by spray drift – the

1 movement of pesticide particles, droplets, and gases off-target during and after application. In a
2 recent regulatory initiative, EPA explained:

3 Pesticide spray drift has been and continues to be of concern to EPA in its responsibility
4 to ensure that pesticide use does not cause unreasonable adverse effects to human health
and the environment. Each year, states receive about 2,500 complaints of drift . . .

5 Pesticide Registration Notice 2001-X, at 3 (3rd Code Decl. Ex. 23). EPA has also confirmed that:

6 Off-target spray can affect human health and the environment. For example, spray drift
7 can result in pesticide exposures to farm workers, children playing outside, and wildlife
and its habitat. . . . The proximity of individuals and sensitive sites to the pesticide
8 application, the amounts of pesticide drift, and the toxicity of the pesticide are important
factors in determining the potential impacts from drift.

9 EPA, Spray Drift of Pesticides at 2 (3rd Code Decl. Ex. 24). EPA’s risk assessments repeatedly
10 find that pesticides applied through aerial applications can contaminate surface water through
11 drift. See, e.g., Ex. 31 at 14 (dimethoate); Ex. 34 at 2, 4, 20 (fenamiphos); Ex. 36 at 5
12 (methidathion); 3rd Code Decl. Ex. 11 at 26, 28, 42 (malathion).

13 The Ninth Circuit recently addressed spray drift from the Forest Service’s aerial
14 application of pesticides. League of Wilderness Defenders v. Forsgren, 2002 U.S. App. LEXIS
15 22,818 (9th Cir. Nov. 4, 2002). The Forest Service had concluded that “[d]rift cannot be
16 avoided” and had imposed a one-mile buffer zone adjacent to designated wilderness areas. Id. at
17 28, 30. The Court held, however, that the Forest Service’s environmental impact statement had
18 failed to analyze how far the pesticide might drift and under what conditions it would impact
19 other nontarget areas. Id. at 31-32.

20 Runoff “can move toxicologically significant amounts of pesticides to surface waters.”
21 Zaber Decl. ¶ 10. The transport of pesticides through runoff from precipitation or irrigation is
22 well-documented. The USGS has correlated pesticide detections to rainfall events and in some
23 instances to irrigation runoff. See, e.g., Ewing Decl. Ex. 7 at 6 (“The highest concentrations, and
24

the transport of the greatest amounts of these compounds, have typically been found during periods of high rainfall”); 2nd Code Decl. Ex. 47 at 21 (correlating diazinon concentrations with storm-water runoff); 3rd Code Decl. Ex. 22 at 1 (attributing highest detection frequencies and concentrations of pesticides in irrigation season with runoff of excess irrigation water).

EPA’s risk assessments routinely find that substantial amounts of pesticides are available for runoff for a period of time after a pesticide application. See, e.g., 1st Code Decl. Ex. 33 at 11 (ethoprop); 1st Code Decl. Ex. 34 at 2, 4, 9, 20 (fenamiphos); 1st Code Decl. Ex. 35 at 43 (methamidophos); 1st Code Decl. Ex. 18 at 25 (metolachlor). The following excerpts from EPA risk assessments illustrate EPA’s findings with respect to the pesticides at issue:

Because of its persistence and mobility, atrazine is expected to reach surface water and ground water. This is confirmed by widespread detections of atrazine in surface water and ground water.” 3rd Code Decl. Ex. 4 at 19, 65.

[T]he ecological risks associated with the use of azinphos-methyl potentially are significant. There is a potential for spray drift and runoff into water bodies with the most drift being associated with aerial applications. Azinphos-methyl is very highly toxic to freshwater and marine fish and to invertebrates, and if it enters a water body in sufficient quantities, it can result in death and reproductive effects in aquatic organisms. 3rd Code Decl. Ex. 5 at 73.

Because of diazinon’s widespread use in the U.S., and documented widespread presence in water bodies at concentrations of concern to aquatic life, there is a high level of certainty that aquatic organisms will be exposed to potentially toxic levels of diazinon in surface water. 3rd Code Decl. Ex. 8 at 32.

Acute and chronic risks to aquatic organisms resulting from surface run-off to rivers, streams and coastal areas is high based on study results. 3rd Code Decl. Ex. 16 at vii (phorate).

There is no question that these pesticides will cause harm to salmon or their habitat if they reach salmon streams in concentrated amounts. There is also no question that each of these pesticides has the potential to migrate to salmon streams in toxic amounts without sufficient safeguards. The open question is what mitigation is adequate to prevent the migration of these

1 pesticides into salmon streams; the answer to that question will not be known until the
2 completion of consultation. Indeed, for some pesticides, it may be impossible to mitigate harm
3 to salmon from continued use of the pesticide. See, e.g., Ex. 33, cover letter at 4 (“Given the
4 extent and magnitude of the LOC exceedances, [EPA] does not believe the risks from the use of
5 Ethoprop can be mitigated effectively.”) It may be necessary to prohibit the use of such
6 pesticides in salmon habitat, which may well occur based on the outcome of the consultation. In
7 the meantime, however, it is possible to craft interim use restrictions that will reduce (although
8 not prevent) harm to salmon during the consultation process.

9 2. *The Court Can Draw From Past ESA Consultations, Which Have Imposed*
10 *Buffer Zones to Prevent Jeopardy and Minimize Harm to Listed Species*
11 *from Pesticides.*

12 In crafting interim measures, EPA’s past consultations on the impacts of its pesticide
13 registrations on other species offer significant guidance. While EPA has never completed a
14 consultation with NMFS on any of its pesticide registrations, it has engaged in consultations with
15 the U.S. Fish and Wildlife Service on many pesticide uses over the years. See 54 Fed. Reg. at
16 27,985 (describing numerous jeopardy biological opinions issued by FWS in the 1980s).

17 Through the Freedom of Information Act (“FOIA”), the Toxics Coalition obtained the
18 most recent biological opinion pertaining to aquatic species, which was issued in 1989. Decl. of
19 Harry Williams ¶ 3 (Nov. 2002) & Ex. 5. This biological opinion made jeopardy findings for
20 numerous pesticides, including many of the pesticides at issue in this case. See, e.g., Ex. 5 at II-
21 64-66; II-83-85; II-97-99; II-161-63 (diazinon, disulfoton, ethoprop, and oxyfluorfen would each
jeopardize a variety of fish species).

22 Whenever the Fish and Wildlife Service made a jeopardy determination for any of the
23 pesticides at issue, it recommended a reasonable and prudent alternative to avoid jeopardy. In
24 every instance, the reasonable and prudent alternative included institution of a pesticide-free

1 buffer around the species' habitat to prevent interaction between the pesticide and the species.
2 Williams Decl. ¶ 5; see also id. ¶ 6 (Service often recommended buffers as mitigation even
3 where it did not find jeopardy). The buffer zones range in size from 20 yards to five miles from
4 species' habitat. Id. ¶ 5. The biological opinion routinely establishes a two-tier buffer with a
5 larger width for aerial applications and a smaller width for ground applications. For example, for
6 atrazine, the biological opinion specifies either a 200-yard aerial and 40-yard ground buffer or a
7 ¼-mile aerial and 100-yard ground buffer. Ex. 5 at II-4-7 & II-20-22. For ethoprop, the opinion
8 prescribes a ¼-mile aerial and 100-yard ground buffer zone for both occupied streams and ½
9 mile along their tributaries. Id. at II-97. For disulfoton, malathion, and oxyfluorfen, the
10 biological opinion has these two scenarios as well as a 100-yard aerial and 20-yard ground buffer
11 scheme for some species. Id. at II-83-84, II-127-29, II-161-62.

12 Despite issuance of the biological opinion over a decade ago, EPA has not incorporated
13 the buffers embodied in the reasonable and prudent alternatives into its pesticide registrations
14 and approved labels. As its re-registration eligibility decisions explain, EPA has postponed
15 implementation of the biological opinions until it finalizes its endangered species program.
16 EPA's 1989 proposal for such a program would rely on county bulletins to implement the
17 biological opinions. See, e.g., 1st Code Decl. Ex. 18 at 46 (EPA "is not imposing label
18 modifications at this time" for metolachlor in 1995. "Rather, any requirements for product use
19 modifications will occur in the future under the Endangered Species Protection Program."); 3rd
20 Code Decl. Ex. 19 at 73 (identical statement for trifluralin in 1996); 1st Code Decl. Ex. 20 at 46
21 ("Limitations on the use of oryzalin will be required to protect endangered and threatened
22 species, but these limitations have not yet been defined" as of 1994).

23 Even though EPA has never finalized an endangered species program, it has started the
24

process of implementing the biological opinions by developing county bulletins for some pesticide uses in some areas of the country. EPA has made these county bulletins accessible through an EPA website. While EPA has developed only two such bulletins both for plants for Oregon and none for Washington, it has prepared numerous bulletins that would apply in other parts of the country. EPA's county bulletins contain mitigation measures drawn from the Fish and Wildlife Service biological opinions, but compliance with the bulletins is purely voluntary in the absence of pesticide label changes and/or EPA's adoption of an endangered species program. Even though these bulletins remain voluntary, they offer the Court guidance in crafting interim measures.

The most common mitigation measures in EPA's county bulletins consist of buffer zones. *Zaber Decl.* ¶ 17. The bulletins commonly apply different buffers to aerial and ground applications. The aerial buffers range in size from ½ mile to 100 yards with ¼-mile and 200-yard buffers in a substantial number of the bulletins. Ground buffers range from ¼ mile to 20 yards with 100-yard and 40-yard buffers in a substantial number of the bulletins. The aerial buffers prohibit aerial applications, while no pesticides may be applied in the ground buffer. The following most common buffer schemes collectively comprise over 90% of the buffer scenarios:

Aerial Buffer	Ground Buffer
½ mile	¼ mile
¼ to ½ mile	100 yards
200 yards	40 yards
100 yards	20 yards

Id. ¶ 17. Where the goal is to protect an aquatic species, the bulletins call for ½-mile aerial and ¼-mile or 100-yard ground buffers 1/3 of the time and 100-yard aerial and 20-yard ground

1 buffers approximately 1/3 of the time, with the remainder generally falling within this range. Id.
2 ¶ 18.

3 California has also developed county bulletins specifying interim protections that remain
4 voluntary until finalization of an EPA endangered species program. 3rd Code Decl. Ex. 25 at 1-3
5 (describing California county bulletins). The California county bulletin for Sacramento County
6 is illustrative. 3rd Code Decl. Ex. 21. Like the EPA bulletins used in other parts of the country,
7 the California bulletins rely on buffer zones, which are generally 200 yards for aerial
8 applications and 40 yards for ground applications. However, because California has an active
9 county agricultural commissioner system, the commissioners can approve alternative mitigation
10 measures based on the application methods and weather conditions. 3rd Code Decl. Ex. 25 at 5-6
11 & CA Food & Agric. Code, § 2001 (role of county agricultural commissioners).

12 It is not surprising that the biological opinions and county bulletins rely on no-application
13 buffers to protect threatened and endangered species from harmful pesticides. Buffers reduce the
14 amount of drift that reaches an off-target area since the amount of drift fallout diminishes as the
15 distance from the point of application increases. As Dr. Giles, an agricultural engineering
16 professor who specializes in pesticide application control systems, explains, “a buffer zone
17 provides a displacement between the application site and the sensitive area. Within this
18 displacement, the fallout portion of the spray drift steadily decreases. With a sufficiently wide
19 buffer, the spray fallout can decrease to a level below that of a biologically significant level for
20 the ecosystem and the organism of interest.” Giles Decl. ¶ 13. As Dr. Zaber states, “[b]uffers
21 along streams slow the movement of water and allow suspended materials to settle out prior to
22 reaching open water. Vegetated buffers also provide substrates for microbial breakdown of
23 pesticides, increased infiltration capacity and soil stabilization functions that translate into direct
24

benefits in rivers and streams.” Zaber Decl. ¶ 12.

Buffers are widely recognized to be an effective mitigation mechanism for minimizing pesticide concentrations in off target areas. The Natural Resources Conservation Service , in the U.S. Department of Agriculture, considers buffers an important tool to reduce pesticide runoff by slowing water runoff, trapping sediment, and enhancing infiltration within the buffer. Zaber Decl. ¶ 15. The Washington Department of Fish and Wildlife has recommended buffers in agricultural lands to slow runoff and filter out pesticides. *Id.* ¶ 14; Ex. 3. A federal report prepared for EPA, NMFS and the Fish and Wildlife Service on salmon habitat protections for nonfederal lands likewise recommends buffer zones along salmon streams in which pesticides cannot be used. *Id.* ¶ 13; Ex. 2. And the Forest Service has imposed one-mile no spray buffers around wilderness areas. *See supra* at 18.

EPA’s recent re-registration eligibility decisions for some of the 54 pesticides have resulted in buffer zones for aerial and ground applications. *See, e.g.,* 2nd Code Decl. Ex. 4 at 82 (2-tier buffers for diflubenzuron); 3rd Code Decl. Ex. 7 at 4, 91, 94 (3-tier buffers for chlorpyrifos); 1st Code Decl. Ex. 28 at 94 & Ex. 17 at 117 (450 foot buffer for certain aerial applications of thiodicarb & methomyl). While these registration changes expressly do not address bringing the pesticide registrations into compliance with the ESA, *see, e.g.,* 3rd Code Decl. Ex. 7 at 95, they lend further support to the efficacy of buffer zones to reduce surface water contamination from use of these pesticides. For example, EPA found that buffer zones imposed on uses of propargite will reduce surface water contamination:

 this requirement will decrease the amount of propargite reaching surface waters directly via spray applications and indirectly via field runoff of precipitation and irrigation water. The Agency’s current models are unable to quantify reductions in surface water concentrations attributable to buffers because of the large number of variables that affect the calculation (type of vegetation in the buffer area, grade and topography of the buffer area, soil type, etc.). It is clear, however, that some reduction in runoff concentrations

1 reaching surface waters will occur.

2 3rd Code Decl. Ex. 18 at 59.

3 In keeping with the Fish and Wildlife Service biological opinions, EPA's county
4 bulletins, and the recommendations of the Washington Department of Fish and Wildlife, the
5 Natural Resources Conservation Service, and the report commissioned by EPA, NMFS, and the
6 Fish and Wildlife Service, this motion seeks buffer zones to reduce the amounts of the pesticides
7 that reach salmon streams. Specifically, the Toxics Coalition asks the Court to issue an
8 injunction prohibiting EPA from continuing to authorize: (1) any use of pesticide products
9 containing the 54 active ingredients within 20 yards of streams and other water bodies accessible
10 to listed salmon; and (2) aerial spraying of pesticide products containing these ingredients within
11 100 yards of streams and other water bodies accessible to listed salmon. The larger buffer is
12 designed to reduce drift into salmon streams from aerial applications, while the 20-yard buffer
13 would reduce surface water contamination from drift from ground applications and runoff of
14 pesticides from all applications.⁶

15 Both EPA and the Fish and Wildlife Service have endorsed the use of buffers as the
16 leading tool to minimize harm to listed species from pesticide use. The requested buffers are
17 drawn from the low end of the mitigation measures contained in the Fish and Wildlife Service
18 biological opinions reasonable and prudent alternatives and EPA county bulletins developed to
19

20 ⁶ The state fish and wildlife agencies maintain databases on fish distribution denoting the
21 presence of various salmon species. See, e.g., <http://www.streamnet.org>. For six salmon
22 listings, NMFS' critical habitat designation identifies accessible stream reaches. 64 Fed. Reg.
23 24,049 (1999) (central California coast & southern Oregon/northern California coast coho); 58
24 Fed. Reg. 33,212 (1993) (Sacramento River winter-run chinook); 58 Fed. Reg. 68,543 (1993)
(Snake River fall-run & spring/summer-run chinook; Snake River sockeye); see also 65 Fed.
Reg. 7,764 (2000) (critical habitat designations for 19 listed salmon, vacated for procedural
reasons, similarly identify accessible fish habitat). See
<http://www.nwr.noaa.gov/1press/CHdecree.html>.

1 protect threatened and endangered species. Imposing such interim buffer zones would simply
2 replicate EPA's chosen mitigation strategy, which NMFS' sister agency, the Fish and Wildlife
3 Service, the other expert fish and wildlife agency, has expressly endorsed.

4 The proposed injunction is compelled by Ninth Circuit ESA precedent to prevent or at
5 least minimize harm to listed salmon during consultation. It is also in accord with a recent non-
6 ESA case – Idaho Watersheds Project v. Hahn, 2002 U.S. App. LEXIS 20,095 (9th Cir. Sept. 24,
7 2002) – which addressed interim measures during preparation of an environmental analysis
8 under the National Environmental Policy Act, 42 U.S.C. § 4332 (“NEPA”). After holding that
9 the Bureau of Land Management (“BLM”) had violated NEPA with respect to grazing on federal
10 lands, the district court established a timetable for BLM to conduct the NEPA analysis and
11 imposed interim conditions on the grazing. 2002 U.S. App. LEXIS at 9-11. The Ninth Circuit
12 upheld the interim measures to prevent environmental harm during the time it would take the
13 federal agency to comply with the law. The Ninth Circuit further held that no evidentiary
14 hearing was necessary since it would replicate the scientific determinations subject to the NEPA
15 review, id. at 31-34, and the district court had conducted a sufficient inquiry to make a “best
16 estimate’ of interim environmental protections [] required to remedy the violation.” Id. at 38-39.

17 As in Idaho Watersheds Project, it will take several years to document and assess the
18 effects of the actions – the registered pesticide uses – as required by law and to impose the
19 necessary mitigation. To make the “best estimate” of what interim environmental protections are
20 required to prevent harm to salmon during the interim, the Court should utilize the mitigation
21 deemed necessary by the Fish and Wildlife Service’s biological opinions to protect other listed
22 species from harmful pesticides in accordance with the ESA.

23 The two-tier buffer zones requested by the Toxics Coalition are at the low end of the
24

mitigation prescribed in the biological opinions and county bulletins, which constitute the first steps taken by EPA to implement those biological opinions. These buffers may well be under-protective in heavy rains, high winds, or steep terrain. They may also fail to keep some extremely toxic pesticides out of salmon streams, thereby subjecting salmon to grave harm. See, e.g., Ex. 33, cover letter at 4 (risk assessment notes that it may not be possible to mitigate harm from ethoprop use); 3rd Code Decl. Ex. 11 at 26 (11.5% of applied malathion deposited 200 meters downwind and 2.9% at 500 meters). Ultimately, as a result of the ESA consultations, EPA may need to cancel some pesticide uses or prohibit use of hazardous pesticides in salmon habitat. In the meantime, the requested buffers, while not a panacea, will reduce the amount of the 54 pesticides that make their way into salmon streams during the time it takes to conduct complete scientific assessments and craft long-term solutions.

B. Additional Restrictions on the Sale and Use of Certain Harmful Pesticides in Urban Watersheds

1. The Need for Further Safeguards in Urban Areas

Some listed salmon, such as the Puget Sound, Upper Willamette, and Sacramento runs of chinook, depend on urban watersheds for their freshwater life stages. Urbanization has dramatically altered natural runoff patterns, rendering streamside buffers less effective. Dr. Richard Horner, an engineering professor with extensive expertise in urban runoff, explains that “urban development greatly raises the volumes and flow rates of stormwater runoff over the quantities generated from the same watershed before development.” Decl. of Richard Horner, Ph.D, ¶ 11 (Nov. 2002). Increases in urban runoff stem from the replacement of natural landscapes with hard, impervious surfaces and stormwater drainage networks. Id. ¶¶ 11-20.

Impervious surfaces, such as pavement, “provide no storage and very little chance for evaporation, leaving nearly immediate surface runoff production the only option.” Id. ¶ 13. As a

1 result, “urbanization of a parcel initially in natural land cover radically alters components of the
2 hydrologic balance so that much of the ‘income’ (precipitation) becomes rapidly ‘spent’ surface
3 flow instead of ‘savings’ (storage in groundwater or the overlying unsaturated zone).” Id. ¶ 15.

4 Stormwater drainage networks alter the plumbing so that precipitation no longer travels
5 slowly over the natural topography but instead travels through conduits, such as gutters, pipes,
6 and ditches, directly to the natural receiving water bodies. Id. ¶¶ 16-18. The urban stormwater
7 drainage network “receives surface runoff much closer to its source and then isolates it until
8 emptying into a receiving water, mostly eliminating any time for infiltration or interaction with
9 vegetation to occur.” Id. ¶ 18. Dr. Horner summarizes:

10 the drainage system in residential and commercial areas of urban places is very likely to
11 provide a short path between source and conduit, giving little opportunity for runoff
12 contact with soil or vegetation, and to create swift flow directly to the stream or other
13 receiving water. Hydrologically, that means that any water that becomes contaminated
with a pesticide will not get subtracted from the flow through soil infiltration or
evaporation. From a water quality standpoint, it means that pesticides in runoff will not
have the opportunity to be removed from the water . . .

14 Id. ¶ 23. Collectively, “[t]his dual revision of the natural hydrologic cycle and drainage network
15 . . . delivers far more water, much faster, to wetlands, lakes, and streams than entered in the pre-
16 development state. While it collects on and runs off from surfaces, water can accumulate solid
17 and soluble materials with which it comes in contact.” Id. ¶ 20. These mechanisms are capable
18 of “entraining these pesticides in stormwater runoff in particulate or dissolved forms and
19 transporting them to receiving waters without substantial diminution during transport.” Id. ¶ 22.

20 Because urbanization so drastically alters surface water runoff with impervious surfaces
21 producing more runoff and drainage networks delivering that runoff directly to the streams,
22 streamside buffers will have diminished utility in the urbanized environment. Such buffers retain
23 utility along natural streams and landscapes in urban areas, but, because urban “runoff is usually
24

channeled straight to receiving waters in a conduit isolating it from any buffer that may be present,” additional safeguards are needed in the urban environment. Horner Decl. ¶ 26.

2. *Pesticides Detected Frequently in Urban Salmon Watersheds for Which the Toxics Coalition Seeks Further Restrictions*

The Toxics Coalition asks the Court to impose further interim measures to protect salmon from a subset of the 54 pesticides that are pervasive in their use and presence in the urban environment. In surface water monitoring in Puget Sound, the Willamette Basin, and the Sacramento River, USGS detected more than a dozen pesticides in urban watersheds with alarming regularity. 3rd Code Decl. ¶¶ 5, 7-12. The following 13 pesticides were detected by USGS more than 20% of the time in at least one of its urban stream surveys:

Atrazine	Diuron	Simazine
Carbaryl	Dichlobenil	Triclopyr
2,4-D	Malathion	Trifluralin
Diazinon	Metolachlor	
Dicamba	Oryzalin	

Id.; Ewing Decl. Ex. 4 at 7, 26; 3rd Code Decl. Ex. 1 at 1, 8, 11; 2nd Code Decl. Ex. 47 at 16, 19.

USGS detected some of the pesticides in all of urban sites sampled in the basin, and it found some, including carbaryl, 2,4-D, diazinon, and malathion in urban streams at or above established aquatic life criteria. See 3rd Code Decl. ¶¶ 7, 11-12.

Each of these pesticides is registered for some urban uses. Id. ¶ 6. When EPA has assessed the aquatic impacts of any registered urban uses of these pesticides, it has found that estimated environmental concentrations will exceed its regulatory level of concern for fish or their habitat. See id. ¶ 13 (diazinon, dichlobenil, malathion, metolachlor, oryzalin, and triclopyr).

USGS investigated pesticide detection patterns in the Willamette basin to identify pesticides with an “urban signature.” Ewing Decl. Ex. 7 at 44. It found that several pesticides

1 readily available to homeowners through retail sales had significantly higher concentrations in
2 urban than agricultural areas, id. at 1, 44 (carbaryl, diazinon, and dichlobenil), while it detected
3 four other pesticides in over half the urban sites sampled, as well as extensively in agricultural
4 sites. Id. at 45 (atrazine, simazine, diuron, and metolachlor).

5 In Puget Sound, USGS correlated spikes in detections of 2,4-D, diazinon, and dichlobenil
6 with high retail sales in the area. USGS made frequent detections in urban streams of other
7 pesticides, such as carbaryl, malathion, triclopyr and trifluralin, which are also purchased in
8 home and garden stores. 3rd Code Decl. Ex. 1 at 13, 18; 2nd Code Decl. Ex. 47 at 7; see also 2nd
9 Code Decl. Ex. 46 at 10-11 (attributing concentrations of certain pesticides in urban streams with
10 household use).

11 USGS has substantiated that the above 13 pesticides currently registered for urban uses
12 pose serious problems for salmon in urban watersheds. EPA has corroborated the USGS
13 findings in its assessments of several of these pesticides. For example, EPA's risk assessment
14 for carbaryl confirms that:

15 Carbaryl is extensively used in such non-agricultural applications, resulting in
16 widespread surface water contamination. This conclusion is based on monitoring data.
17 In urban and suburban areas small streams are generally greatly affected by surface
18 runoff and water collection into storm sewers. These small streams can provide a
significant habitat for aquatic animals, and this habitat can be severely degraded by
runoff of urban pesticides. Gardens and lawn care products and other outdoor uses
contribute to carbaryl presence in storm sewers and streams.

19 3rd Code Decl. Ex. 6 at 29.

20 Similarly, EPA found that "[t]he highest level of malathion surface water contamination
21 occurs in urban areas," "[i]t is likely that proposed residential uses will result in aquatic
22 contamination," and "risk to aquatic life from runoff transported residues will be high in urban
23 use scenarios." 3rd Code Decl. Ex. 11 at 28, 42, 100; accord id. at 46 ("Residential settings are

1 expected to be composed of numerous surfaces which may be physically and biologically
2 impervious to malathion. . . Monitoring results suggest that the residential surfaces increase
3 availability of malathion for runoff . . .”); id. at 100 (noting increased runoff from
4 impermeability of residential surfaces and lack of degradation on such surfaces).

5 With respect to diazinon, EPA has concluded that “[t]here is high certainty that in all
6 urban and suburban areas where diazinon is applied outdoors and where irrigation or rainfall
7 cause runoff, there will be negative impacts on aquatic biota from the diazinon use.” 3rd Code
8 Decl. Ex. 8 at 36. While EPA has agreed to a phase out and eventual cancellation of outdoor,
9 nonagricultural uses of diazinon, sales of such products will continue through 2004. Id.

10 Each of these 13 pesticides has EPA-authorized urban uses that have led to extensive
11 contamination of urban streams. Since buffers alone are insufficient to reduce such
12 contamination in the urban setting, the Toxics Coalition asks the Court to impose use restrictions
13 in addition to buffers on these 13 pesticides, which USGS has detected frequently in urban
14 streams. Specifically, EPA should be prohibited from authorizing use of any of these pesticides
15 in urban watersheds accessible to listed salmon unless the pesticide is sold by a licensed
16 pesticide dealer and applied by a certified pesticide applicator, as described below.

17 3. *Limiting Use of Certain Pesticides to Certified Applicators Would Reduce*
18 *Urban Runoff of Harmful Pesticides*

19 FIFRA establishes a category of applicators, called “certified applicators,” who are
20 subject to specialized training. Under FIFRA, EPA may limit applications of a pesticide to
21 certified applicators when use in accordance with the label and common practice may harm the
22 environment. FIFRA, 7 U.S.C. §§ 136(e), 136a(d). EPA either institutes or authorizes states to
23 administer certification programs that require training to obtain and retain certification. Id. §
24 136i; 40 C.F.R. §§ 171.4(a) & 171.8. The training affords a vehicle for ensuring that applicators

1 have sufficient information and skill to apply pesticides without harming the environment,
2 including endangered species. Id. § 171.4(b)(iii)(c), (vii); (viii) (training to protect fish & the
3 environment, prevent of drift, & comply with federal laws);
4 <http://www.epa.gov/oppfead1/safety/applicators/ctprogs.htm> (training to protect endangered
5 species & water quality); 3rd Code Decl. Ex. 24 at 3 (training to minimize off-target spray drift).

6 In addition, EPA imposes recordkeeping requirements on certified commercial
7 applicators, and states can impose additional requirements, such as use reporting. 40 C.F.R. §
8 171.7(a)(iii)(E) (requiring recordkeeping); CAL. CODE. REGIS. tit. 3, § 6627 (requiring monthly
9 use reporting). The recordkeeping and reporting mandates promote accountability in the use of
10 particularly dangerous pesticides, a deterrent for misuse, and a mechanism for EPA and the states
11 to track usage and monitor impacts.

12 The 13 pesticides for which the Toxics Coalition seeks additional urban restrictions
13 currently may be sold through home and garden stores or even through mail orders to
14 homeowners, consumers, and landscapers who generally lack special training in how to apply the
15 pesticides safely. As EPA explained in its proposed ESA program (54 Fed. Reg. at 28,007):

16 The EPA recognizes that implementation of the Program for homeowners may require
17 very different methods. Users of home and garden products are rarely certified
18 applicators and, therefore, would not have undergone certification training, which is a
19 major means of educating and informing agricultural users of pesticides.

20 As this case has revealed, the existing labels fail to disclose the magnitude of harm that
21 these pesticides pose to listed salmon or mitigation to prevent that harm. Yet the uninformed
22 purchaser might well assume that EPA would not authorize use of pesticides that are likely to
23 harm listed salmon and that the necessary mitigation measures are prescribed through the
24 product label. Neither over-the-counter sales nor mail order distribution affords a suitable
25 mechanism for correcting this impression and guarding against harm to salmon. Id. at 27,994

1 (acknowledging difficulties in disseminating use restriction information to household users
2 because of lack of routine contact with them and diversity of retailers who sell household
3 pesticide). In contrast, the certified applicator network offers a conduit for dissemination of
4 hazard information and additional training to reduce the risks to salmon. Not only can certified
5 applicators be made aware that these pesticides pose risks to salmon and are undergoing
6 thorough consultation under the ESA, but EPA can pass additional information along to certified
7 applicators as the consultations proceed.

8 To ensure that only certified applicators apply these pesticides in urban salmon
9 watersheds, the Toxics Coalition asks that the sale of these 13 pesticides be limited to licensed
10 pesticide dealers in Washington, Oregon, and California. ORS 634.006 (11); CA Food & Agric.
11 Code § 11407; RCW 15.58.030(32); see also 7 U.S.C. § 136i(a)(1)(EPA authority to require
12 state licensing of pesticide dealers); 40 C.F.R. 169.3(b) (EPA recordkeeping requirements for
13 licensed pesticide dealers). The licensed pesticide dealers can ensure that only certified
14 applicators purchase the 13 pesticides for use in urban watersheds with listed salmon, and that
15 these applicators are made aware of that use of these pesticides may harm listed salmon.

16 Finally, since these pesticides are readily available for sale in home and garden stores,
17 and even grocery stores, large numbers of consumer purchasers may have unused supplies of
18 them in their homes. EPA is well-positioned to disseminate information to reach such end users.
19 For example, through its public outreach program, EPA produces public education materials that
20 could be used to inform the public of the interim protections in place during consultation. Decl.
21 of Arthur-Jean Williams ¶ 27(c) (Mar. 2002). In addition, EPA can convey the interim
22 restrictions to pesticide registrants to pass along through the chains of commerce and to state
23 regulatory agencies to inform certified applicators, pesticide dealers, and other users. See, e.g.,

1 Chemical Mfrs. Ass'n v. Allenby, 958 F.2d 941 (9th Cir. 1992) (state point of sale warnings);
2 Wash. Admin. Code § 16-219-015 to -030 (1993 & 1994) (state use restrictions, mandates to
3 dealers to disseminate hazard information, reporting, & specialized training requirements). The
4 Toxics Coalition asks that EPA be required to take steps to notify registrants, certified
5 applicators, state, and the public of any restrictions imposed by this Court and that the industry-
6 intervenors be required to notify their members of such restrictions.

7 CONCLUSION

8 The Toxics Coalition asks the Court to issue an injunction imposing the interim
9 protections described above and spelled out in the attached proposed order to minimize the harm
10 to listed salmon during the consultation process. These use restrictions should apply to
11 registered pesticides containing the 54 active ingredients (and the additional urban restrictions to
12 the 13 frequently detected urban use pesticides) unless and until: (1) NMFS issues a biological
13 opinion on the pesticide use and EPA implements that biological opinion or otherwise brings the
14 pesticide registration into compliance with Section 7 of the ESA; (2) EPA finds that a pesticide
15 use is not likely to adversely affect any listed salmon and NMFS concurs in writing with that
16 finding; or (3) EPA finds that a pesticide use will have no effect on any listed salmon.

17 Respectfully submitted this 26th day of November, 2002.

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19
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